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SECTIONS AND ANALYSES OF
NOVA SCOTIA COALS.

BY EDWIN GILPIN, JR., A. M., LL. D., F R. S. C.,
ETC. ETC.

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SECTIONS AND ANALYSES OF NOVA SCOTIA COALS.—BY EDWIN
GILPIN, JR., A. M., LL. D., F. R. S. C., etc., etc.

(Read 18th May, 1903.)

I venture to submit the following sections and analyses of Nova Scotia coals. The paper refers only to seams which are at present being worked, and the sections and analyses have all been recently measured and made. While the true value of coals may be better determined by ultimate analyses and practical tests for coking, evaporative power, etc., these results may be of interest to the members of the Institute.

SECTIONS OF NOVA SCOTIA SEAMS.

PICTOU COUNTY.

*Intercolonial Coal Mining Company, Drummond Colliery
Westville :*

Main Seam, section taken 200 feet below No. 14 lift :

	Feet.	Inches.
<i>Top coal (coarse)</i>	2	2
<i>Full coal</i>	3	8
<i>Fire-clay</i>	0	5
<i>Top-ply coal</i>	2	0
<i>Bench coal</i>	5	2
<i>Stone</i>	0	5
<i>Bench coal</i>	2	8
<i>Stone</i>	0	5
<i>Bottom coal</i>	3	0
Total	19	11

Main Seam at No. 4 Slope, top level :

	Feet.	Inches.
<i>Coal (coarse)</i>	1	2
<i>Fire-clay</i>	0	5
<i>Coal</i>	3	6
<i>Pyritous parting</i>	0	1
<i>Coal</i>	2	10
Total	8	0

Acadia Coal Company:

Acadia Main Seam at south level sinking, Acadia Colliery,
Westville:

	Feet.	Inches.
<i>Top coal</i>	9	10
<i>Fall coal</i>	3	6
<i>Soft carbonaceous shale</i>	0	3
<i>Coal</i>	4	4
<i>Coal (coarse)</i>	2	0
<i>Coal (bench)</i>	3	6
Total	14	5

Deep Seam, at No. 4 balance, 1900 feet level, Albion Mines,
Stellarton:

	Feet.	Inches.
<i>Coal</i>	4	4
<i>Coal (coarse)</i>	3	8
<i>Coal</i>	12	0
Total	20	0

Third Seam, south level, 2000 feet from slope, Albion Mines,
Stellarton:

	Feet.	Inches.
<i>Coal</i>	9	0
<i>Coal (coarse)</i>	0	9
<i>Coal</i>	3	3
Total	13	0

McGregor Seam, Albion Mines, Stellarton:

	Feet.	Inches.
<i>Coal (Fleming Seam)</i>	4	2
<i>Coal, coarse, (parting)</i>	5	0
<i>Coal</i>	6	0
<i>Hard shale with ironstone nodules (not persistent)</i>	0	6
<i>Coal</i>	15	0
Total	30	8

Six Feet Seam, Vale Colliery, Thorburn :

This seam does not maintain a regular thickness, varying from 3 to 6 feet, within short distances. Thus in No. 1 balance, north side, it runs from $3\frac{1}{2}$ to 5 feet clean coal. In Nos. 2 and 3 balances, same district of the mine, it runs from 4 to $6\frac{1}{2}$ feet of good coal. In the sinking it shows from 6 to 7 feet of good coal.

Nova Scotia Steel and Coal Company :

G. Mackay Seam, Marsh Colliery :

	Feet.	Inches.
Coal (coarse).....	0	1
Coal	3	0
Coal (coarse).....	0	4
Stone	0	1
Coal	0	4
Total	3	10

CUMBERLAND COUNTY.

Cumberland Railway and Coal Company, Springhill :

No. 2 (or West) Slope :

	Feet.	Inches.
West Seam,—west side	8	0
Aberdeen Seam (extension of West Seam)	8	0
Under Seam, } (split extension of Middle	4	0
Over Seam, } [or East] Seam)..	4	0

No. 3 (or North) Slope :

North Seam,—west side.....	8	3
North Seam,—east side	4	0

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Canada Coals and Railway Company Joggins :

	Feet.	Inches.
Coal	3	0
Clay	1	2
Coal	1	6
Total	5	8

Minudie Coal Company, Minudie Colliery, River Hebert :

	Feet.	Inches.
Coal	1	7
Fireclay	0	8
Coal	1	0
Total	4	0

Stratheona Coal Company, Stratheona Colliery, River Hebert :

Milner Seam (?) :

	Feet.	Inches.
Coal (with parting)	2	6

Jubilee Colliery, Maccan River.

Coal	2	0
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Maritime Coal Company, Chignecto Colliery, Maccan :

	Feet.	Inches.
Coal	2	6
Fire-clay	1	6
Coal (with parting)	5	6
Total	9	6

CAPE BRETON COUNTY.

Gowrie and Blockhouse Collieries, Port Morien :

Gowrie Seam :

	Feet.	Inches.
Coal	4	10

Nova Scotia Steel and Coal Company, Sydney Mines :

Main (or No. 1) Seam at Princess Pit :

	Feet.	Inches.
Coal	5	4

Lloyd's Cove (or No. 2) Seam :

	Feet.	Inches.
Coal	2	3
Clay	0	2
Coal	0	6
Clay	0	0 $\frac{1}{2}$
Coal	3	3 $\frac{1}{2}$
Total	5	3

Main (or No. 3) Seam at Sydney Pond :

Coal	4	7 $\frac{1}{2}$
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Sydney Coal Company, North Sydney Colliery, Indian Cove

No. 3 (or Indian Cove) Seam :

	Feet.	Inches.
Splint coal	0	3
Coal	4	3
Total	4	6

Dominion Coal Company :

Phalen Seam at Caledonia Colliery, Glace Bay :

	Feet.	Inches.
Splint	0	0 $\frac{1}{2}$
Coal	5	11 $\frac{1}{2}$
Parting	0	0
Coal	1	6
Total	7	6

Phalen Seam, at Dominion No. 2 Colliery :

	Feet.	Inches.
Coal	7	6

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Phalen Seam, at Dominion No. 3 Colliery :

<i>Coal</i>	5	3
<i>Splint</i>	0	0½
<i>Coal</i>	3	0
Total	8	3½

Phalen Seam, at Reserve Colliery :

	Feet.	Inches.
<i>Coal</i>	8	0

Phalen Seam, at Dominion No. 1 Colliery :

	Feet.	Inches
<i>Coal</i>	8	0

Harbor Seam, at Dominion No. 2 Colliery :

	Feet.	Inches.
<i>Splint</i>	0	1
<i>Coal</i>	6	5
Total	6	6

Harbor Seam, at International Colliery :

<i>Splint</i>	0	1
<i>Coal</i>	5	8
Total ..	5	9

VICTORIA COUNTY.

Cape Breton Coal Mining Company, New Campbellton :

Main Seam :

	Feet.	Inches
<i>Splint</i>	0	4
<i>Coal</i>	4	0
Total	4	4

INVERNESS COUNTY.

Inverness Railway and Coal Company, Broad Cove :

Seven Feet Seam :		
	Feet.	Inches.
<i>Coarse coal</i>	0	7
<i>Splint</i>	0	4
<i>Coal</i>	6	1
Total	7	0

Port Hood Coal Company, Port Hood :

Main Seam :		
	Feet.	Inches.
<i>Splint</i>	0	2
<i>Coal</i>	6	8
<i>Splint</i>	0	2
Total	7	0

Mabou Coal Mining Company, Mabou :

No. 1 (or Seven Feet) Seam :		
	Feet.	Inches.
<i>Coal</i>	1	6
<i>Shale parting</i>	0	1
<i>Coal</i>	1	6
<i>Shale parting</i>	0	1
<i>Coal</i>	2	0
<i>Clay</i>	0	1
<i>Coal</i>	1	9
Total	7	0

No. 2 (or Eight Feet) Seam :		
	Feet.	Inches.
<i>Shaley Coal</i>	1	0
<i>Coal with shale</i>	1	5
<i>Clay parting</i>	0	2
<i>Coal and shale</i>	0	6
<i>Soft fire-clay</i>	1	0
<i>Coal</i>	3	3
<i>Fre-clay</i>	0	3
<i>Coal, hard</i>	0	9
<i>Coal</i>	3	6
Total	11	10

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No. 3 (or Fifteen Feet) Seam:

	Feet.	Inches.
<i>Shaley coal</i>	2	0
<i>Coal</i>	3	6
<i>Clay parting</i>	0	1
<i>Shaley coal</i>	0	6
<i>Coal</i>	2	6
<i>Shale parting</i>	0	2
<i>Coal</i>	1	3
<i>Shale parting</i>	0	1
<i>Coal</i>	4	0
Total	14	1

No. 4 Seam:

	Feet.	Inches.
<i>Coal</i>	2	6
<i>Canneloid coal</i>	1	6
<i>Coal</i>	2	0
Total	6	0

ANALYSES OF NOVA SCOTIA COALS.

PICTOR COUNTY.

	Volatile combustible matter.	Fixed carbon.	Ash.	Sulphur.	Mois- ture.
Intercolonial Main Seam..	25.73	65.36	8.20	1.10	.72
Marsh Colliery.....	35.43	55.48	9.99	1.26	..
Vale Colliery	28.80	55.30	14.50	.92	1.40
Acadia, Westville.....	28.09	60.77	9.99	1.24	1.15
McGregor Seam	28.37	61.13	10.50	1.43	*
Cage Pit Seam	29.88	59.34	10.78	.87	*
Third Seam	30.69	53.81	15.97	1.37	*
Acadia Mines, average....	26.80	62.20	9.70	1.15	1.30

* Moisture included in volatile matter.

SECTIONS AND ANALYSES OF N. S. COALS.—GILPIN. 16

CUMBERLAND COUNTY.

	Volatile combustible matter.	Fixed carbon.	Ash.	Sulphur.	Mois- ture.
Joggins	40.89	48.33	10.78	5.72	..
Minudie	36.15	52.45	9.60	5.04	1.80
Strathecona	37.36	52.25	10.39	4.47	..
Chignecto	39.75	48.75	9.95	6.02	1.55

Springhill (straight in levels):

No. 2 Slope, east side...	34.09	59.25	6.66	1.14	..
" " Minto Seam..	37.44	56.85	5.71	2.36	..
" " Aberdeen, east	32.30	60.49	7.31	1.02	..
" " " west	31.08	58.30	10.62	2.62	..
No. 3 Slope, west, 3800 ft.	35.36	59.72	4.92	.96	..
" " 2600 ft.	33.42	58.58	8.00	1.12	..
" " east, top, }					
" " 2600 ft. }	36.44	58.54	5.02	1.10	..
" " east, top, }					
" " 2600 ft. }	36.05	57.38	6.57	2.38	..
Average analysis Spring- hill coal.....	34.51	58.64	6.85	1.59	..

CAPE BRETON COUNTY.

Sydney Mines Main Seam...	36.27	57.05	4.76	2.01	1.92
Lloyd's Cove Seam	36.11	57.25	2.83	3.14	3.81
Lingan Main Seam	34.05	59.97	3.68	1.71	2.32

Phalen Seam:

Dominion No. 1	31.25	60.75	6.95	1.88	1.05
" No. 2	32.45	61.45	5.25	1.99	.85
" No. 3	31.65	62.20	5.00	1.67	.95
Caledonia ..	30.85	62.05	6.40	2.32	.70
Reserve.....	30.75	63.70	4.65	1.81	.90
Harbor Seam, at Inter- national.....	37.20	56.90	5.10	3.11	.80
Gowrie Seam, at Gowrie } and Blockhouse Col. }	36.00	57.70	5.20	3.82	1.10

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VICTORIA COUNTY.

	Volatile combustible matter.	Fixed carbon.	Ash.	Sulphur.	Mois- ture
New Campbellton Main Seam	35.50	51.55	8.95	5.50	4.00

INVERNESS COUNTY.

Port Hood Main Seam....	34.67	56.39	8.94	1.10	..
Mabou, 7 Feet Seam	35.90	53.30	8.70	1.88	2.10
" 8 " "	34.25	56.40	6.95	1.85	2.40
" 15 " "	37.50	51.20	9.05	5.77	2.25
" 5 " "	35.65	49.55	11.95	5.20	2.85
" Average of seams	35.82	52.61	9.16	3.67	2.40
Broad Cove, 7 Feet Seam....	45.55	47.09	7.36	4.91	..

